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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/414,518      | 10/08/1999  | BRIAN YANG           | EM/YANG/5037        | 3398             |

7590

05/21/2003

BACON & THOMAS  
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ALEXANDRIA, VA 22314

EXAMINER

GRIER, LAURA A

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 05/21/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/414,518

Applicant(s)

YANG ET AL.

Examiner

Laura A Grier

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-43 is/are allowed.
- 6) ☒ Claim(s) 28-30 and 32 is/are rejected.
- 7) ☒ Claim(s) 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 28-29, and 32** are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi, U. S. Patent No. 4922483.

Regarding **claims 28-29**, Kobayashi discloses a multi-channel PCM music broadcasting system (figures 1-3). Kobayashi discloses blocks, each block representing a music source, wherein the music source (which indicates voice signals) may include one or more channels, using a digital or analog signal (Col. 2, lines 49-53 and col. 3, lines 9-14), which constitutes generating digital voice signals and transmitting the voice signals through a plurality of channels; each block including the channels (each channel) is time division multiplexed , which indicates time division sampling of voice signal according to period channel selecting; and modulated prior to transmission, and transmitted as a combined signal via the mixer (col. 2, lines 49-65), to a receiver, wherein the signal is processed via D/A conversion to analog signal which indicates being generated as an voice output signal.

Regarding **claim 32**, Kobayashi discloses everything claimed as applied above (see claim 28). Thus it is inherent that the each voice signal is sampled a least once as evident by the TDM technique.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi.

Regarding claim 30, Kobayashi discloses everything claimed as applied above (see claim 28). Kobayashi discloses bit quantization of the digital signals involved in the TDM technique. However, Kobayashi fails to specifically disclose the signal have an eight bit signal. However, an eight bit digital signal is commonly used for transmission of voice signals. Thus it is obvious to provide the digital signals of Kobayashi with a bit value of 8-bit for providing a commonly used field size (6 to 8 bits) of a digital signal when transmitted to comprises a single byte signal.

***Allowable Subject Matter***

4. **Claim 31** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. **Claims 33-43** are allowed.

The following is a statement of reasons for the indication of allowable subject matter:  
see applicant's response.

Regarding claim 33, the prior art of record is drawn to voice data generators, and time division multiplexing of a plurality of channels associated with respective voice signal, and loudspeakers. However, the prior art of record fails to disclose or fairly suggest, the channel selector coupled to voice data generators, and a voice generator coupled to the channel selector for modulating to the multi-channel signal to provide an voice output, in respect the details of the specification, therein, as of the claimed invention.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1-4, and 13-27, now cancelled, have been considered but are moot in view of the new ground(s) of rejection.

The applicant essential argues that the prior art of record, Kaneko and Elam, failed to disclose the claimed invention, in that the voice data generators are not taught in the references, and the channel selector sampling technique. Kaneko and Elam have not been used in the Office Action above. Another reference of prior art has been used to support the invention in respect to the claim limitations. In respect the channel selecting sampling technique, the TDM technique is providing through selective time processing of individual channels of a plurality of channels to being processed and/or transmitted, and a TDM method may be synonymous with the time-division channel selecting sampling claim limitation, in respect to the claim language.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**


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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG   
May 5, 2003

  
FORESTER W. ISEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600